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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

Office Action Summary

Application No.

10/628,561

Applicant(s)

SCHULZ ET AL.

Examiner

THOMAS MANSFIELD

Art Unit

3624

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14, 16, 18-22, 37 and 38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14, 16, 18-22, 37 and 38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/08)
Paper No(s)/Mail Date 8 June 2009
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendments

1. This Continued Examination Office Action is in reply to the Request for Continued Examination filed on 8 June 2009.
2. Claims 1, 37, and 38 have been amended.
3. Claims 1-14, 16, 18-22, 37, and 38 are currently pending and have been examined.

Continued Examination Under 37 CFR 1.114

4. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8 June 2009 has been entered.

Double Patenting

5. Claims of this application conflict with claims 1, 2, 5-14, 16, 17, 20-29, 31, and 33-44 of Application No. 10/628,565. 37 CFR 1.78(b) provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application. Applicant is required to either cancel the conflicting claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP § 822.

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).
A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.
Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 1-14, 16, 18-22, 37, and 38 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 2, 5-14, 16, 17, 20-29, 31, and 33-44 of copending Application No. 10/628,565. Although the conflicting claims are not identical, they are not patentably distinct from each other because the limitation, *representing the first private workflow as a first matrix in which the first plurality of tasks are each represented as first vertices, where values of the first vertices within the first matrix would have been obvious to one of ordinary skill in the art at the time of the invention*. One would have been motivated to do so for the benefit of generating workflow models using an algorithm or mathematical representation.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Response to Amendment

8. In the previous office action, Claims 1-14, 16, and 18-22 were rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Although the Applicant amended Claim 1 to recite a computer-readable storage medium, the amendment is not sufficient to tie the subject matter to a statutory class. Therefore, the rejection is **maintained** and further explained below.

Response to Arguments

9. Applicant's arguments filed 6 May 2009 have been fully considered but they are moot in view of new grounds of rejection.

Specification

10. The amendments filed 6 May 2009 and 8 December 2008 are objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: Claim 1 is currently amended to recite, *"a computer-readable storage medium"*. There is no mention of a computer-readable storage medium within the specification. Claims 37 and 38 were previously added as new claims. Claim 37 recites, *"a computer-readable medium with a computer program comprising instructions that, when executed, operate to cause a computer to perform operations comprising:"*. There is no support within the specification for this limitation in the preamble. Although Claim 38 recites a system, there is no support for computer architecture components to accomplish the steps within claims 1, 37, and 38. Claim 38 also recites, *"one or more computers"*, and, *"a computer-readable medium coupled to the one or more computers having instructions stored thereon, which, when executed by one or more computers, causes the one or more computers to perform operations comprising:"*. There is no support in the specification for these limitations. However, the Examiner notes that workflow management systems 402 and 426, gateways 418 and 444, monitors 432 and 446 that are specified in at least pages 14-15 in the specification are inherently capable as being components of a computer architecture. **Applicant is required to amend the specification** to properly recite additional computer components such as one or more computers with one or more processors capable of communicating, storing and retrieving data within databases, etc. in order to provide proper support for the limitations recited in Claims 1, 37, and 38. See also the below rejection under 35 USC 101.

Claim Rejections - 35 USC § 101

11. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

12. Claims 1-14, 16, and 18-22 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

As stated in the previous office action, Claim 1 is directed toward the statutory category of a process. In order for a claimed process to be patentable subject matter under 35 U.S.C. § 101, it must either: (1) be tied to a particular machine, or (2) transform a particular article to a different state or thing. See *In Re Bilski*, 88 U.S.P.Q.2d 1385 (2008); *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972). If neither of these requirements is met by the claim, the method/process is not patentable subject matter under § 101. Thus, to qualify as a statutory process under § 101, the claim should positively recite the machine to which it is tied (e.g. by identifying the apparatus that accomplishes the method steps), or positively recite the subject matter that is being transformed (e.g. by identifying the material that is being changed to a different state). Nominal recitations of structure in an otherwise ineligible method fail to make the method a statutory process. See *Benson*, 409 U.S. at 71-72. Thus, incidental physical limitations such as insignificant extra-solution activity and field of use limitations are not sufficient to convert an otherwise ineligible process into a statutory one.

Here, the claimed process fails to meet the above requirements for patentability under § 101 because it is not tied to a particular machine and does not transform underlying subject matter. Although Claim 1 has been amended to include a computer-readable storage medium, it is not clear how the data is kept in storage. A computer-readable storage medium is not a particular machine. Likewise, it is also not clear how the accepting, representing, ordering, adding, and

logging steps are accomplished. Claims 2-14, 16, and 18-22 are rejected for the same rational since they depend from Claim 1.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 1-14, 16, 18-22, 37, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schulz et al (Schulz), "Architecting Cross-Organisational B2B Interactions" in view of Shen et al. (Shen), "Coordinating Interorganizational Workflows Based on Process-Views".

With regard to Claims 1, 37, and 38, Schulz teaches *a method, system, and computer-readable medium of building a combined workflow* (Workflow Management Systems (WfMSs)) (see at least section 2.2 through section 3) *comprising:*

- *storing (data stores) a first private workflow and a second private workflow (one or more private business processes can be grouped into a service) in a computer-readable medium, the first private workflow being associated with only a first party (private activity (the grey circles without contained systems)) and including a confidential (confidential) first plurality of actual tasks (business tasks), and the second private workflow being associated with only a second party and including a confidential second plurality of actual tasks* (see at least section 2.2 and section 4);

- *accessing the first and second private workflows from the computer-readable storage medium (accessing a domain-specific and regional-specific Internet marketplace) (see at least sections 4.6 through section 5.1);*
- *accepting the first private workflow (Private and Shared Process Tiers) into a first tier of a multi-tiered workflow model (see at least section 4.2);*
- *accepting the second private workflow into the first tier (Private and Shared Process Tiers) of the multi-tiered workflow model (see at least section 4.2);*
- *abstracting the first private workflow and the second private workflow (abstraction of the actual processes) in a second tier of the multi-tiered model to provide respective first and second private abstracted non-confidential (shared, public) workflow views of the first and second private workflows to the second party and the first party, respectively, the first workflow abstracted view including a first plurality of grouping of the first plurality of tasks (groups of tasks), and the second abstracted workflow view including a second plurality of groupings of the second plurality of tasks (see at least section 4.2.2 through section 5);*
- *ordering the first plurality of groupings and the second plurality of groupings from the first and second, different private workflows into a single combined workflow (Business Events) in a third tier of the multi-tiered workflow model, the combined workflow being shared by the first party and the second party and having a task order (shared process tasks) that, when executed, provides a desired result of a business collaboration (an information exchange (and thus collaboration) between the first party and the second party (see at least section 4.2.2 through section 4.3);*
- *adding ordering tasks (roles) to the combined workflow, the ordering tasks being operable to implement the order of the combined workflow and thereby achieve the desired result (see at least section 4.3 through section 4.6);*

- *logging (a full log of all services that have been invoked on the systems of an organisation) interactions between the first party and the second party during execution of the combined workflow (Business Process Gateway) (see at least section 5.2).*

Schulz does not specifically teach *defining first state dependencies between the first plurality of actual tasks of the first private workflow and the first abstracted view, and second state dependencies between the second plurality of actual tasks of the second private workflow and the second abstracted view, the first and second state dependencies assuring that the respective first and second abstracted views accurately represent states of the corresponding first and second pluralities of actual tasks*. Shen teaches *defining first state dependencies (dependencies) between the first plurality of actual tasks (set of activities) of the first private workflow (base process, virtual process, private processes) and the first abstracted view (abstracted process information), and second state dependencies between the second plurality of actual tasks of the second private workflow and the second abstracted view, the first and second state dependencies assuring that the respective first and second abstracted views accurately represent states of the corresponding first and second pluralities of actual tasks* in analogous art of interorganizational workflows for the purposes of, "A process-view is an abstracted process derived from a base process to provide abstracted process information" (see at least the Abstract, section 1 and 2).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the interorganizational workflows as taught by Shen in the cross-organisational B2B interactions method as disclosed by Schulz. One of ordinary skill in the art would have been motivated to do so for the benefit of providing different levels or aspects of information concealment or privacy (Shen, sections 1 and 2).

Schulz does not specifically teach *representing the first private workflow as a first matrix in which the first plurality of tasks are each represented as first vertices, where values of the first vertices within the first matrix are determined by first dependencies between the first plurality of tasks*. Shen teaches *representing the first private workflow* (private process, Base process, Process-view, WfMSsub1) *as a first matrix* (Definitions 1 and 2, 2-tuple, 4-tuple) *in which the first plurality of tasks (activities) are each represented as first vertices* (4-tuple, unique activity identifier within a process), *where values of the first vertices within the first matrix are determined by first dependencies (dependencies) between the first plurality of tasks* (indicates that *x* is completed and *C* is true is one precondition of whether activity *y* can start) in analogous art of interorganizational workflows for the purposes of, "A process-view is an abstracted process derived from a base process to provide abstracted process information" (see at least section 2).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the interorganizational workflows as taught by Shen in the cross-organisational B2B interactions method as disclosed by Schulz. One of ordinary skill in the art would have been motivated to do so for the benefit of determining proprietary implementation of the communication autonomously among the public and private processes (Shen, sections 2.1-2.3).

Schulz does not specifically teach *representing the second private workflow as a second matrix wherein each of the second plurality of tasks are represented as second vertices, where values of the second vertices within the second matrix are determined by second dependencies between the second plurality of tasks*. Shen teaches *representing the second private workflow* (private process, Base process, Process-view, WfMSsub2) *as a second matrix* (Definitions 1 and 2, 2-tuple, 4-tuple) wherein each of the second plurality of tasks (activities) are represented as second vertices (4-tuple, unique activity identifier within a process), where values of the second vertices within the second matrix are determined by second dependencies (dependencies) between the second plurality of tasks (indicates that *x* is completed and *C* is true is one precondition of whether activity *y* can start) in analogous art of interorganizational workflows for

the purposes of, "A process-view is an abstracted process derived from a base process to provide abstracted process information" (see at least section 2).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the interorganizational workflows as taught by Shen in the cross-organisational B2B interactions method as disclosed by Schulz. One of ordinary skill in the art would have been motivated to do so for the benefit of determining proprietary implementation of the communication autonomously among the public and private processes (Shen, sections 2.1-2.3).

Schulz does not specifically teach *defining control flow dependencies between the first abstracted view and the second abstracted view, the first and second control flow dependencies expressing interaction of the first and second private workflows*. Shen teaches *defining control flow dependencies* (Coordinating Inter-enterprise Processes through Virtual States, State Mapping) *between the first abstracted view and the second abstracted view, the first and second control flow dependencies expressing interaction of the first and second private workflows* (Atomicity rules, two or more member activities, WfExecutionObject) in analogous art of interorganizational workflows for the purposes of, "The operations, e.g., *suspend, terminate, and change_* to control a WfExecutionObject change" (see at least section 4).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the interorganizational workflows as taught by Shen in the cross-organisational B2B interactions method as disclosed by Schulz. One of ordinary skill in the art would have been motivated to do so for the benefit of changing the state or status of a workflow process and its associated workflow processes among the public and private processes (Shen, section 4.1).

With regard to Claim 2, Schulz teaches *wherein adding ordering tasks comprises forming a sequential flow which interleaves implementation* (sequential execution of the tasks, compound tasks) *of the first plurality of tasks and the second plurality of tasks* (see at least section 4.1).

With regard to Claim 3, Schulz teaches *wherein adding ordering tasks comprises forming a parallel (parallel) flow of a first task within the first plurality of tasks and a second task within the second plurality of tasks* (see at least section 4.1).

With regard to Claim 4, Schulz teaches *wherein adding ordering tasks comprises adding at least one of conjunctive splitting and joining tasks which specify the task order* (Tasks can represent synchronization points between parallel flows and flows themselves can be split and joined) (see at least section 4.1).

With regard to Claim 5, Schulz teaches *wherein adding ordering tasks comprises adding at least one of alternative (compound task) splitting and joining tasks which specify the task order* (see at least section 4.1).

With regard to Claim 6, Schulz does not specifically teach *wherein adding ordering tasks comprises adding a first splitting task which designates that a first task within the first private workflow workflow is followed by a first following task and a second following task*. Shen teaches *wherein adding ordering tasks comprises adding a first splitting (SPLIT_flag) task which designates that a first task within the first private workflow workflow is followed by a first following task and a second following task* (ordering-preserved process-view, state transition) in analogous art of interorganizational workflows for the purposes of, "control the progress of inter-enterprise processes through the execution states (virtual states) of virtual activities/processes" (see at least sections 2-4 and Fig. 3).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the interorganizational workflows as taught by Shen in the cross-organisational B2B interactions method as disclosed by Schulz. One of ordinary skill in the art would have been motivated to do so for the benefit of coordinating base processes, process-views and integrated processes during run-time (Shen, section 4).

With regard to Claim 7, Schulz does not specifically teach *wherein adding ordering tasks comprises adding the first following task as a second task within the second private workflow*. Shen teaches *wherein adding ordering tasks comprises adding the first following task as a second task within the second private workflow* in analogous art of interorganizational workflows for the purposes of, "control the progress of inter-enterprise processes through the execution states (virtual states) of virtual activities/processes" (see at least sections 2-4 and Fig. 3).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the interorganizational workflows as taught by Shen in the cross-organisational B2B interactions method as disclosed by Schulz. One of ordinary skill in the art would have been motivated to do so for the benefit of coordinating base processes, process-views and integrated processes during run-time (Shen, section 4).

With regard to Claim 8, Schulz does not specifically teach *wherein adding ordering tasks comprises adding the first following task as a first joining task, the first joining task designating a second task within the second private workflow as following the first joining task and the first splitting task (SPLIT_flag)*. Shen teaches *wherein adding ordering tasks comprises adding the first following task as a first joining task (JOIN_flag), the first joining task designating a second task within the second private workflow as following the first joining task and the first splitting task (SPLIT_flag)* in analogous art of interorganizational workflows for the purposes of, "control the progress of inter-enterprise processes through the execution states (virtual states) of virtual activities/processes" (see at least sections 2-4 and Fig. 3).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the interorganizational workflows as taught by Shen in the cross-organisational B2B interactions method as disclosed by Schulz. One of ordinary skill in the art would have been motivated to do so for the benefit of coordinating base processes, process-views and integrated processes during run-time (Shen, section 4).

With regard to Claim 9, Schulz does not specifically teach *wherein adding ordering tasks comprises adding a second splitting task following the second task within the second private workflow, the second splitting task designating that the second task is followed by a third following task and a fourth following task*. Shen teaches *wherein adding ordering tasks comprises adding a second splitting task following the second task within the second private workflow, the second splitting task designating that the second task is followed by a third following task and a fourth following task* in analogous art of interorganizational workflows for the purposes of, "control the progress of inter-enterprise processes through the execution states (virtual states) of virtual activities/processes" (see at least sections 2-4 and Fig. 3).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the interorganizational workflows as taught by Shen in the cross-organisational B2B interactions method as disclosed by Schulz. One of ordinary skill in the art would have been motivated to do so for the benefit of coordinating base processes, process-views and integrated processes during run-time (Shen, section 4).

The Examiner notes that the claimed contents of Claim 9 amount to non-functional descriptive material that does not functionally alter the claimed method. The recited steps would be performed in the same manner regardless of at least two or more tasks within two or more processes were contained in the ordering of tasks. Thus the prior art and the claimed invention have identical structure and the claimed descriptive material is insufficient to distinguish the claimed invention of the prior art. *see In re Gulack*, 703 F.2d 1381, 217 USPQ 401, 404 (Fed. Cir. 1983; *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994; MPEP 2106.

With regard to Claim 10, Schulz does not specifically teach *wherein adding ordering tasks comprises adding the third following task as the second following task, the second following task being a second joining task within the first private workflow that designates that a third task within the first private workflow follows the second following task*. Shen teaches *wherein adding ordering tasks comprises adding the third following task as the second following task, the second following task being a second joining task within the first private workflow that designates that a third task within the first private workflow follows the second following task* in analogous art of interorganizational workflows for the purposes of, "control the progress of inter-enterprise processes through the execution states (virtual states) of virtual activities/processes" (see at least sections 2-4 and Fig. 3).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the interorganizational workflows as taught by Shen in the cross-organisational B2B interactions method as disclosed by Schulz. One of ordinary skill in the art would have been motivated to do so for the benefit of coordinating base processes, process-views and integrated processes during run-time (Shen, section 4).

The Examiner notes that the claimed contents of Claim 10 amount to non-functional descriptive material that does not functionally alter the claimed method. The recited steps would be performed in the same manner regardless of at least two or more tasks within two or more processes were contained in the ordering of tasks. Thus the prior art and the claimed invention have identical structure and the claimed descriptive material is insufficient to distinguish the claimed invention of the prior art. *see In re Gulack*, 703 F.2d 1381, 217 USPQ 401, 404 (Fed. Cir. 1983; *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994; MPEP 2106.

With regard to Claim 11, Schulz does not specifically teach *wherein adding ordering tasks comprises adding the fourth following task as a third joining task within the second private workflow, the third joining task designating that a fourth task within the second private workflow follows the third joining task and the third task within the first private workflow*. Shen teaches *wherein adding ordering tasks comprises adding the fourth following task as a third joining task within the second private workflow, the third joining task designating that a fourth task within the second private workflow follows the third joining task and the third task within the first private workflow* in analogous art of interorganizational workflows for the purposes of, "control the progress of inter-enterprise processes through the execution states (virtual states) of virtual activities/processes" (see at least sections 2-4 and Fig. 3).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the interorganizational workflows as taught by Shen in the cross-organisational B2B interactions method as disclosed by Schulz. One of ordinary skill in the art would have been motivated to do so for the benefit of coordinating base processes, process-views and integrated processes during run-time (Shen, section 4).

The Examiner notes that the claimed contents of Claim 11 amount to non-functional descriptive material that does not functionally alter the claimed method. The recited steps would be performed in the same manner regardless of at least two or more tasks within two or more processes were contained in the ordering of tasks. Thus the prior art and the claimed invention have identical structure and the claimed descriptive material is insufficient to distinguish the claimed invention of the prior art. *see In re Gulack*, 703 F.2d 1381, 217 USPQ 401, 404 (Fed. Cir. 1983; *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994; MPEP 2106.

With regard to Claim 12, Schulz does not specifically teach *wherein a second ordering task is a joining task which designates a fourth task within the second private workflow, the fourth task following the second task within the combined private workflow*. Aalst teaches *wherein a second ordering task is a joining task which designates a fourth task within the second private workflow, the fourth task following the second task within the combined private workflow* in analogous art of interorganizational workflows for the purposes of, "control the progress of inter-enterprise processes through the execution states (virtual states) of virtual activities/processes" (see at least sections 2-4 and Fig. 3).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the interorganizational workflows as taught by Shen in the cross-organisational B2B interactions method as disclosed by Schulz. One of ordinary skill in the art would have been motivated to do so for the benefit of coordinating base processes, process-views and integrated processes during run-time (Shen, section 4).

The Examiner notes that the claimed contents of Claim 12 amount to non-functional descriptive material that does not functionally alter the claimed method. The recited steps would be performed in the same manner regardless of at least two or more tasks within two or more processes were contained in the ordering of tasks. Thus the prior art and the claimed invention have identical structure and the claimed descriptive material is insufficient to distinguish the claimed invention of the prior art. *see In re Gulack*, 703 F.2d 1381, 217 USPQ 401, 404 (Fed. Cir. 1983; *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994; MPEP 2106.

With regard to Claim 13, Schulz does not specifically teach *wherein adding ordering tasks comprises: adding a third task within the first private workflow as a second following task; adding a second joining task within the first private workflow as the third following task, the second joining task designating that a fourth task within the first private workflow follows the third following task*. Shen teaches *wherein adding ordering tasks comprises: adding a third task within the first private workflow as a second following task; adding a second joining task within the first private workflow as the third following task, the second joining task designating that a fourth task within the first private workflow follows the third following task* in analogous art of interorganizational workflows for the purposes of, "control the progress of inter-enterprise processes through the execution states (virtual states) of virtual activities/processes" (see at least sections 2-4 and Fig. 3).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the interorganizational workflows as taught by Shen in the cross-organisational B2B interactions method as disclosed by Schulz. One of ordinary skill in the art would have been motivated to do so for the benefit of coordinating base processes, process-views and integrated processes during run-time (Shen, section 4).

The Examiner notes that the claimed contents of Claim 13 amount to non-functional descriptive material that does not functionally alter the claimed method. The recited steps would be performed in the same manner regardless of at least two or more tasks within two or more processes were contained in the ordering of tasks. Thus the prior art and the claimed invention have identical structure and the claimed descriptive material is insufficient to distinguish the claimed invention of the prior art. *see In re Gulack*, 703 F.2d 1381, 217 USPQ 401, 404 (Fed. Cir. 1983; *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994; MPEP 2106.

With regard to Claim 14, Schulz teaches *wherein ordering the first plurality of tasks comprises inputting the task order from an operator* (customer on a web page) (see at least section 4.2, last paragraph).

With regard to Claim 16, Schulz does not specifically teach *inserting the first matrix and the second matrix into a third matrix; modifying a selected value within the third matrix, thereby reflecting a construction or removal of a selected dependency between two vertices within the first plurality of tasks, consistent with the task order; adding a fourth vertex before a first of the two vertices, the fourth vertex having a first chosen value reflecting a first new dependency between the fourth vertex and the first of the two vertices; and adding a fifth vertex after the first of the two vertices, the fifth vertex having a second chosen value reflecting a second new dependency between the fifth vertex and the first of the two vertices*. Shen teaches *inserting the first matrix and the second matrix into a third matrix (atomicity, tuples); modifying a selected value within the third matrix, thereby reflecting a construction or removal of a selected dependency between two vertices within the first plurality of tasks, consistent with the task order; adding a fourth vertex before a first of the two vertices, the fourth vertex having a first chosen value reflecting a first new dependency between the fourth vertex and the first of the two vertices; and adding a fifth vertex after the first of the two vertices, the fifth vertex having a second chosen value reflecting a second new dependency between the fifth vertex and the first of the two vertices* in analogous art of interorganizational workflows for the purposes of, "control the progress of inter-enterprise processes through the execution states (virtual states) of virtual activities/processes" (see at least sections 2-4 and Fig. 3).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the interorganizational workflows as taught by Shen in the cross-organisational B2B interactions method as disclosed by Schulz. One of ordinary skill in the art would have been motivated to do so for the benefit of coordinating base processes, process-views and integrated processes during run-time (Shen, section 4).

The Examiner notes that the claimed contents of Claim 16 amount to non-functional descriptive material that does not functionally alter the claimed method. The recited steps would be performed in the same manner regardless of at least two or more vertices within two or more matrices. Thus the prior art and the claimed invention have identical structure and the claimed descriptive material is insufficient to distinguish the claimed invention of the prior art. *see In re Gulack*, 703 F.2d 1381, 217 USPQ 401, 404 (Fed. Cir. 1983; *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994; MPEP 2106).

With regard to Claim 18, Schulz does not specifically teach *selecting a subset of the combined workflow for execution by the first party*. Shen teaches *selecting a subset of the combined workflow for execution* (is created when the execution of a new workflow definition is triggered) *by the first party* (parties) in analogous art of interorganizational workflows for the purposes of, "B2B Process Model" (see at least section 4).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the interorganizational workflows as taught by Shen in the cross-organisational B2B interactions method as disclosed by Schulz. One of ordinary skill in the art would have been motivated to do so for the benefit of coordinating base processes, process-views and integrated processes during run-time within a shared business process (Shen, section 4).

With regard to Claim 19, Schulz teaches *determining that the subset includes a third plurality of tasks, each consecutive pair of the third plurality of tasks connected by a dependency* (complex dependencies between tasks that are described in terms of control flows and data flows between tasks) (see at least section 4.1).

With regard to Claim 20, Schulz teaches *determining that a last task within the third plurality of tasks precedes at most one subsequent task within the combined workflow* (parallel and sequential execution of tasks in a business process) (see at least section 4.1).

With regard to Claim 21, Schulz does not specifically teach *determining that no internal task within the third plurality of tasks, exclusive of the last task, immediately precedes an external task that is not included within the third plurality of tasks*. Shen teaches *determining that no internal task within the third plurality of tasks, exclusive of the last task, immediately precedes an external task that is not included within the third plurality of tasks* in analogous art interorganizational workflows for the purposes of, "The ordering-preserved approach ensures that the original execution order in a base process is preserved" (see at least section 3).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the interorganizational workflows as taught by Shen in the cross-organisational B2B interactions method as disclosed by Schulz. One of ordinary skill in the art would have been motivated to do so for the benefit of cooperation scenarios (Shen, section 4.2)

With respect to Claim 22, Schulz does not specifically teach *determining that no internal task within the third plurality of tasks, exclusive of a first task of the third plurality of tasks, immediately succeeds an external task that is not included within the third plurality of tasks*. Schen teaches *determining that no internal task within the third plurality of tasks, exclusive of a first task of the third plurality of tasks, immediately succeeds an external task that is not included within the third plurality of tasks* in analogous art of interorganizational workflows for the purposes of, "The ordering-preserved approach ensures that the original execution order in a base process is preserved" (see at least section 3).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the interorganizational workflows as taught by Shen in the cross-organisational B2B interactions method as disclosed by Schulz. One of ordinary skill in the art would have been motivated to do so for the benefit of cooperation scenarios (Shen, section 4.2)

Conclusion

15. The following prior art made of record and not relied upon is considered pertinent to applicant's disclosure:
- Ouchi et al. (U.S. Pub. No. 2003/0078820) discloses an object based workflow route including abstraction of view in different levels.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to THOMAS MANSFIELD whose telephone number is (571)270-1904. The examiner can normally be reached on Monday-Thursday 8:30 am-6 pm, alt. Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bradley Bayat can be reached on 571-272-6704. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/T. M./
Examiner, Art Unit 3624

12 August 2009
Thomas Mansfield

/Scott L Jarrett/
Primary Examiner, Art Unit 3624